

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1 through 10 (canceled)

11. (new) A coolant circuit of a motor vehicle having a coolant flowing therethrough and the motor vehicle having an engine, the coolant circuit comprising:

a coolant pump having a coolant outlet;

a retarder having a central ring and being selectively connectable to the coolant circuit;

a reversing valve upstream of the retarder;

a bypass section for bypassing the retarder,

wherein the retarder can be connected to and disconnected from the coolant circuit,

wherein the coolant pump is upstream of the retarder and provides coolant past the retarder via the bypass section when the retarder is disconnected from the coolant circuit, and

wherein the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit.

12. (new) The coolant circuit of claim 11, wherein the coolant comprises water or a water mixture.

13. (new) The coolant circuit of claim 11, wherein the first flow resistance is between approximately 5% to approximately 30% lower than the second total flow resistance.
14. (new) The coolant circuit of claim 11, wherein the retarder is connected in series with the coolant circuit, the coolant pump, and the reversing valve.
15. (new) The coolant circuit of claim 11, wherein the retarder is downstream of the engine and the coolant pump is upstream of the engine.
16. (new) The coolant circuit of claim 11, wherein the retarder is upstream of the engine and the coolant pump is downstream of the engine.
17. (new) The coolant circuit of claim 11, wherein the retarder is a secondary retarder.
18. (new) The coolant circuit of claim 11, wherein the reversing valve is constructed as a rotary slide valve comprising:
 - an inlet and two outlets;
 - a cylindrical valve piston rotatable about a longitudinal axis, the cylindrical valve piston comprising
 - an outlet hole being incorporated into the valve piston in a radial direction and which can be aligned in a flush manner with each of the outlets by rotating the valve piston;
 - an inlet hole being incorporated in the valve piston in the radial direction and connected to the outlet hole in a flow carrying manner;
 - wherein the inlet hole has a construction that is conically tapering proceeding radially from the outside to the inside; and
 - wherein the radial outer opening surface has a diameter that is enlarged in such a way that there is a constant flow-carrying

connection to the inlet, regardless of the alignment of the outlet hole with an outlet.

19. (new) The coolant circuit of claim 11, wherein the retarder further comprises:
 - a working chamber;
 - a stator with a plurality of holes on an inlet side for introducing at least a portion of the coolant into the working chamber; and
 - a plurality of guide elements, uniformly distributed over a circumference of the stator on the inlet side to provide for the uniform distribution of the at least a portion of the coolant over the stator circumference.
20. (new) The coolant circuit of claim 19, wherein the plurality of guide elements comprise ribs.
21. (new) The coolant circuit of claim 19, wherein the plurality of holes are conically enlarged in the flow direction.
22. (new) The coolant circuit of claim 19, wherein the stator further comprises a plurality of stator blades.
23. (new) The coolant circuit of claim 22, wherein the plurality of holes are located in a predetermined number of the plurality of stator blades.
24. (new) The coolant circuit of claim 23 wherein the plurality of holes are a plurality of parallel holes.
25. (new) The coolant circuit of claim 23 wherein at least one hole is located on each stator blade.
26. (new) The coolant circuit of claim 23 wherein at least one hole is located on every other stator blade.

27. (new) An engine comprising:

a coolant circuit of a motor vehicle having a coolant flowing therethrough and the motor vehicle having an engine, the coolant circuit comprising:

 a coolant pump having a coolant outlet;

 a retarder having a central ring and being selectively connectable to the coolant circuit;

 a reversing valve upstream of the retarder;

 a bypass section for bypassing the retarder,

 wherein the retarder can be connected to and disconnected from the coolant circuit,

 wherein the coolant pump is upstream of the retarder and provides coolant past the retarder via the bypass section when the retarder is disconnected from the coolant circuit, and

 wherein the coolant outlet of the coolant pump to the central ring of the retarder has a first flow resistance that is measured when the retarder is connected to the coolant circuit and is lower than a second flow resistance to be overcome by the coolant pump when the retarder is disconnected from the coolant circuit.

28. (new) The engine of claim 27 further comprising a transmission wherein the retarder is connected to a drive side of the transmission.